Remarks:

Applicant has read and considered the Office Action dated October 15, 2007 and the references cited therein. Claims 1-3 and 5-6 have been amended. Claims 1-6 are currently pending.

In the Action, claims 1 and 2 were objected to as there was a typographical error in claims 1 and 2. Claims 1 and 2 have been amended to delete the objected to words and have been replaced with correct spellings.

Claim 5 was rejected under 35 U.S.C. § 112, second paragraph, for lacking antecedent basis for "said staining of PSA" in line 2. Claim 5 has been amended so that there is no prior reference to PSA. Applicant asserts that the indefiniteness rejection has been overcome and requests that rejection be withdrawn.

Claims 1, 2, 3 and 6 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. With regard to claim 1, "statistical evaluation" was stated to be unclear. The language has been deleted and replaced with language clearly supported in the specification. Claim 2 recites the use of PSA. The reference to the use has been deleted from the claim. Applicant asserts that the rejection has been overcome.

The Action states that with regard to claim 3, "wherein histogram analysis of the isotype control and staining after carrying out flow cytometry" is unclear and seems to be missing a few words. Claim 3 has been amended so that histogram analysis of the isotype control and staining of said cells is performed after carrying out flow cytometry. Applicant asserts that the rejection has been overcome and requests that it be withdrawn.

Finally, claim 6 recites an "analysis arrangement" of carrying out said method of claim 1. Claim 6 has been amended to recite a kit. Applicant asserts there is clearly support in the specification for the recitation of a kit and Applicant asserts that the rejection has been overcome and requests that it be withdrawn.

Claims 1-6 were rejected under 35 U.S.C. § 102(b) as being anticipated by Brandt et al. Applicant respectfully traverses the rejection and asserts that the method of the present application is fundamentally different for identifying different cells and provides non-obvious advantages over the cited Brandt et al. reference.

The Office Action states that Brandt et al. teach isolation of prostate-derived single cells and cell clusters from human peripheral blood. Brandt et al. teach a cytokeratin immunomagnetic method of isolating PSA-positive epithelial cells from the circulating blood of prostate cancer patients as a means to analyze genetic and biochemical characteristics of such cells for clinical relevance of prostate cancer cell identity and risk of metastasis. Peripheral blood samples from patients were gradient centrifuged and permeabilized using saponin after which they were stained with antibodies directed to PSA, CD45, or CD14. Flow cytometric analysis was them performed to sort the cells. The reported isolation method yielded prostate-derived cells or clusters of them from prostate cancer diagnosed patients. Specifically, flow cytometric analysis revealed PSA-positive stained leukocytes in the peripheral blood of patients. The Office Action asserts that the reference teaches each and every limitation of the claims.

The Office Action states that Brandt shows prostate-derived single cells and cell clusters and contends that PSA-positive epithelial cells for circulating blood of prostate cancer patients are shown. Brandt therefore describes only genetic and biochemical characteristics of epithelial cells, namely the prostate cells in blood and their relevance for metastasis. However, such a method is not directed to immune cells and their content. This is a fundamental difference between the current method recited in the claims and the method of the Brandt reference. Brandt

et al. describe a method relying in part on a prior method, see the reference to Griwatz, Brandt et al. (Endnote 15), wherein a centrifuge is used to select epithelial cells for analysis and the monocytes and macrophages are explicitly removed. Such a method teaches away from the present invention and is directed to different cells. Moreover, in this method, the prostate cells that lack surface staining for blood cells are perforated using saponine and stained with cytokeratin and PSA. These prostate cells are washed away in the blood by metastatis and include the cytokeratin and PSA, which are evidence that the cells originally belonged with the prostate and are not immune cells, further teaching away from the method of the present application.

The Office Action also states that the cells in Brandt are then stained with antibodies directed to PSA, CD45 or CD14. This is directed to a second, different method in Brandt than the method described in the first portion of Brandt. They cannot be combined with one another. The methods described in Brandt are used completely independent from one another. The method described on page 4557 in the right column, is not comparable with the methods of the present application and cannot produce the same results. Neither method in Brandt teaches or suggests a subsequent selection of monocytes and/or macrophages. The antibodies against PSA and CD45 or CD14 are added simultaneously and do not include perforation steps. Therefore, in Brandt there is only a simultaneous surface staining with CD45 and CD14. There are no combined surface/interior staining of leukocytes. Brandt describes that in Figure 1A, the scattergram is a typical section of all cells found in the blood exclusive of red blood cells. Moreover, as shown in Figures 1A, 1B, 2A and 2B in Brandt et al., there is no non-classifiable conglomerate of three cells. The CD45 marker is a marker that detects all leukocytes and there can be no selection of particular leukocytes. Brandt further shows in Figure 1C in contrast to 1B, that in a pure surface staining, there is no evidence of significant cell numbers in the range of macrophages and/or monocytes to be found and this method is clearly directed to different identification. Therefore, Brandt only discusses PSA positive leukocytes as there is no finding of

positive macrophages based on preparation of cells. One of ordinary skill in the art would not understand this to even suggest more macrophage specific preparation of CD14 and PSA. Although the Office Action is correct that Brandt describes "prostate-derived cells or cell clusters" of patients in which advanced cancer has been diagnosed, this is not relevant for the method of the present application as two fundamentally different and incompatible methods are involved.

In the present application, very specific immune cells are to be examined that are different from those cells being examined in Brandt et al. Moreover, the Office Action states that flow cytometric analysis revealed PSA-positive stained leukocytes, which would include monocytes and macrophages in the peripheral blood of patients. However, as shown in Figure 1C of Brandt et al., the monocytes of that method are negative for PSA. This is in contrast to the method of the present application. As a fundamental understanding in the field, macrophages are only found in tissue and not in the blood stream since they mature to macrophages only in the tissue. However, how such macrophages were in the blood was not known or explained at the time of the invention. Therefore, one of ordinary skill in the art at the time of the invention would not find cells in blood which were widely understood to not exist in the blood and there was no explanation as to how such cells would be in the blood stream.

Moreover, Applicant asserts that the methods of Brandt would not lead to the results of the present application. The method of the present application provides for particular preparation and isolation aimed at a completely different cell group than those described or suggested in the prior art. Applicant therefore asserts that one of ordinary skill in the art would not arrive at the isolation and identification of cells of the method of the present application based on the cited Brandt et al., or any other prior art or combination thereof. The method of the present application is fundamentally different and used to identify characteristics of completely different cells. Applicant asserts that the method of the present invention provides non-obvious

advantages over the prior art. Applicant asserts that the claims are in condition for allowance and requests that the rejections be withdrawn.

A speedy and favorable action in the form of a Notice of Allowance is hereby solicited. If the Examiner feels that a telephone interview may be helpful in this matter, please contact Applicant's representative at (612) 336-4728.

Respectfully submitted,

MERCHANT & GOULD P.C.

Dated: 2/15/08

By: _____
Gregory A. Sebald
Reg. No. 33,280
GAS/krn